ROUTE CONCEPT REPORT

ROUTE 218

IN

MONTEREY COUNTY

CALTRANS DISTRICT
5

1990

AUGUST ~~1984~~

ROUTE CONCEPT REPORT SUMMARY

ROUTE 218

MON R0.0 to 2.0

ROUTE CONCEPT

Route 218 should be maintained or improved as indicated by the table below and the attached STRIP map. Recommended and/or existing traffic Level of Service* is LOS D.

Segment	P.M. to P.M.	Concept LOS	Prop. Improvement
No. 1 (MON)	R0.0 to 2.0 (Seaside and Del Rey Oaks)	D-35	Four-lane conventional highway with channelization where needed

It should be noted that the Concept LOS may not agree with any LOS established by the local planning agencies. The Concept LOS, for the most part, is based on present traffic conditions. In some instances, this may vary depending on traffic needs and/or financial and technical considerations.

CONCEPT RATIONALE:

Existing Route 218 is designated a minor arterial for its entire length. Traffic is commute and local in nature. Route 218 serves as a major link between the Monterey Bay communities and State Route 68 which leads to Salinas and Route 101.

The Concept LOS shown is based on present traffic volumes.

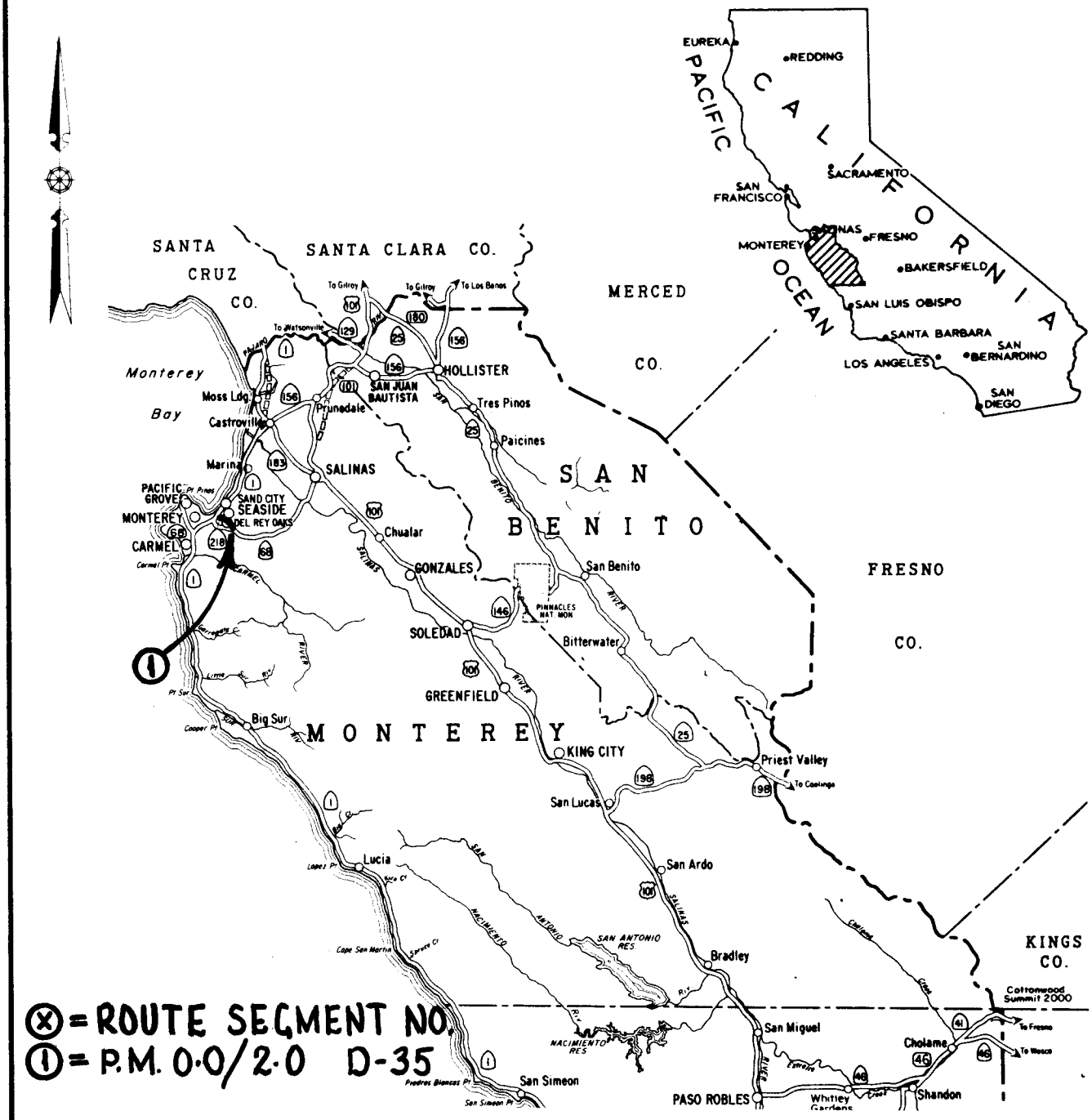
AREAS OF CONCERN:

The increase in traffic on Route 218 will cause the level of service to deteriorate to F-20 within 10 years.

IMPROVEMENTS:

The purpose of this report is to establish a concept without describing specific improvements. Specific improvements, if any, will be addressed in a follow up document - The Route Development Plan.

*Levels of Service are defined in the appendix of this report.



⊗ = ROUTE SEGMENT NO.
① = P.M. 0.0/2.0 D-35

DISTRICT 5

ROUTE 218
VICINITY MAP

Scale

5 0 10 20 30 40 50 MILES

ROUTE 218 CONCEPT REPORT

P.M. R0.0 to P.M. 2.0

PREFACE

The following represents Caltrans' District 5's format for route concept reports. We felt that extensive use of strip maps made for a more "usable product". You will find that practically all existing route data is shown on these strip maps at the appropriate locations. Improvements and costs, if any, are not shown as they will be discussed in the upcoming route development plans.

The Route Concept Report (RCR) is a planning document which expresses the Department's judgment on what the characteristics of the State highway should be to respond to the projected travel demand over the 20-year planning period.

The RCR contains the Department's goal for the development of each route in terms of level of service and broadly identifies the nature and extent of improvements, if any, needed to reach those goals. The RCR then provides the basis for the preparation of route development plans and the system analysis which indicates the level of service provided on the system at a given level of funding.

Route Concept Reports are prepared in the districts and represent the combined expertise of district staff. Facility dimensions (e.g., roadway widths or number of lanes on a multi-laned facility) discussed in the RCR represent an initial planning approach to scoping candidate improvement and determining estimated costs.

All information in the Route Concept Report is subject to change as conditions change and new information is obtained. Consequently, the nature and size of identified improvements may change as they move through the project development stages, with final determinations made at the time of project planning and design. If the nature and size of improvements change from that included in this report during later project development stages, this will be cause to review the Route Concept Report for this route.

It should be noted that the proposed concepts shown on the strip maps are minimums that may or may not suffice in particular situations. Any proposed improvement or improvements will still be judged on an individual basis as to merit or fitting a particular situation.

In some cases, resurfacing, restoration and rehabilitation (3R) projects, will not adhere to the minimum concepts stated in this report. In these instances, exceptions to the minimum will be requested of the FHWA for funding purposes.

ROUTE 218

MON R0.0 to 2.0

1. Route Description Within District 5

Route 218 in Monterey County is 2.9 miles in length. It is a two and four lane conventional highway for its entire length. The two lane portion comprises two miles in length.

Route 218 begins in Seaside at the junction of Route 1 and continues easterly through commercial and residential areas (Seaside and Del Rey Oaks) to the junction of Route 68.

2. Route Segmentation

This route has been incorporated into one segment which is shown on the attached strip map.

Route segments are based on district boundaries, county boundaries, change in functional classification, significant changes in terrain, and changes in the function or use of the route.

3. Purpose of Route

The primary purpose of Route 218 is serving both local and commuter traffic.

Route 218 is not a SHELL (State Highway Extra Legal Load) Route.

Route 218 is designated a Federal Aid Urban Route.

4. Existing Facilities

Refer to the strip map for current status (geometrics, traffic, Accident Date, etc.).

In the adopted 1984 STIP, under New Facilities and/or Operational Improvements, there are no projects scheduled for Route 218.

5. Present and Future Operating Conditions

Refer to the strip map for present and future operating conditions other than listed below.

Public Transit (Daily)

Public transit has no bearing or significant effect on the operational characteristics of Route 218.

Rail Service

None

6. Concerns at the end of the STIP period

The two lane portion of Route 218 already exceeds the Concept LOS of D-35. It currently operates at LOS E.

The Route Concept Report guidelines are based on existing operating speeds, level of service and accident rates.

Where the levels of the Route Concept Report criteria are exceeded, it is shown on the strip map as an asterisk next to the appropriate item.

7. Future Concerns (6-20 year period)

The increase in traffic on Route 218 will cause the level of service to deteriorate to LOS F on the two lane portion.

8. Route Concept (2005)

Concept Level of Service (LOS)

The district shows a concept LOS of D-35 for Segment No. 1.

Minimum Typical Cross Section

A four lane minimum typical cross section is recommended.

The route concept will include widening of the route only where operational, accident or route gap problems exist or are projected to exist. This does not preclude other decisions as more or better information becomes available.

Alignment Changes

There are no Alignment Changes anticipated for Route 218 at this time.

9. Route Improvements

All proposed route improvements are listed on the attached strip map.

10. Alternate Route Concepts Considered

No alternate route concepts have been considered.

It is felt that Route 218 is a candidate for relinquishment. It is a State highway that operates at best as a local arterial. The possibility of relinquishing this Route to the local entities is very remote in the foreseeable future. No one is willing to add more lane miles of maintenance.

APPENDIX

You will note that the term "Level of Service" (LOS) appears frequently within this report. Level of Service is a term used to describe the quality of operation of a highway facility. It is a qualitative measure of the effect of such factors as speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, convenience, safety and operating cost. It is based on peak traffic hours in this report. On urban street systems, the quality of flow is most frequently controlled by traffic conditions at signalized intersections. The flow characteristics at the six defined levels of service, A through F, can be described as follows:

LEVEL OF SERVICE DEFINITIONS (Uninterrupted Traffic Flow)

Level of Service A (LOS A) describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions.

Level of Service B (LOS B) is in the zone of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation.

Level of Service C (LOS C) is still in the zone of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most of the drivers are restricted in their freedom to select their own speed, change lanes, or pass.

Level of Service D (LOS D) approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volumes and temporary restrictions to flow may cause substantial drops in operating speeds.

Level of Service E (LOS E) cannot be described by speed alone, but represents operations at even lower operating speeds than in level D, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages of momentary duration.

Level of Service F (LOS F) describes forced flow operation at low speeds, where volumes are below capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of the downstream congestion. In the extreme, both speed and volume can drop to zero.

LEVEL OF SERVICE DEFINITIONS (Traffic Signal Controlled)

Level of Service A is unobstructed flow; no approach signal phase is fully utilized by traffic and no vehicle waits longer than one red indication.

Level of Service B is stable operation; an occasional approach signal phase is fully utilized and a substantial number are approaching full use.

Level of Service C is stable operation with intermittent loading, relatively frequently. Occasionally, drivers may have to wait through more than one signal indication, and backups may develop behind turning vehicles.

Level of Service D shows delays to approaching vehicles may be substantial during short periods during the peak period, with periodic clearance of developing queues.

Level of Service E shows unstable flow conditions with long queues over extended periods. Capacity occurs at the limit of this level.

Level of Service F shows forced flow conditions, with demand exceeding capacity; highly variable delay and long backups.

ROUTE SEGMENT DATA
****

DISTRICT: 5 COUNTY: MON ROUTE: 218

SEGMENT NUMBER: 1 P.M.: 0.0 to P.M.: 2.0 LENGTH: 2.0

DESCRIPTION: Jct. Rte. 1 to Jct. Rte. 68
(subsegment P.M. 0.0 to L0.9)

FUNCTIONAL CLASSIFICATION: Minor Arterial

FEDERAL AID CLASSIFICATION: Urban

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 4

LANE WIDTH: 12' SHOULDER WIDTH: 2', 4', & 8'

R/W WIDTH: 100' MEDIAN WIDTH: 4' & 12'

ADT (Present, ~~1905~~ 1990): ~~14,600~~ 16,000

ADT (Future, ~~2005~~ 2010): ~~28,600~~ 25,000

PEAK HOUR VOLUME (Present): ~~1,460~~ 1600

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.65 LOS: C % TRUCKS: 7%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: ~~0.61~~ 4,44 FAT: 0.00 F&I: ~~0.38~~ 2,57

COMP. STWIDE ACC. RATE: ~~2.99~~ 3,25 FAT: ~~0.039~~ 0,026 F&I: ~~1.27~~ 1,28

PROPOSED ROUTE CONCEPT (2005): No Change

ROUTE CONCEPT LOS (2005): E-30*

ANTICIPATED LOS (2005): F-20

Exhibit No.: 1A

ROUTE SEGMENT DATA
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DISTRICT: 5 COUNTY: MON ROUTE: 218

SEGMENT NUMBER: 1 P.M.: 0.0 to P.M.: 2.0 LENGTH: 2.0

DESCRIPTION: Jct. Rte. 1 to Jct. Rte. 68
(subsegment P.M. L0.9 to 2.0)

FUNCTIONAL CLASSIFICATION: Minor Arterial

FEDERAL AID CLASSIFICATION: Urban

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 2

LANE WIDTH: 12' SHOULDER WIDTH: 2', 4', & 8'

R/W WIDTH: 100' MEDIAN WIDTH: 0'

ADT (Present, ~~1985~~ 1990): ~~8,000~~ 8,500

ADT (Future, ~~2005~~ 2000): ~~16,000~~ 14,000

PEAK HOUR VOLUME (Present): ~~900~~ 1000

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.90 LOS: E* % TRUCKS: 7%

SIGNALIZED INTERSECTIONS: 2

ACCIDENT RATE: ~~0.42~~ 1.05 FAT: 0.00 F&I: ~~0.33~~ 0.65

COMP. STWIDE ACC. RATE: ~~2.92~~ 2.93 FAT: 0.042 F&I: ~~1.26~~ 1.27

PROPOSED ROUTE CONCEPT (2005): 4-lane Conventional Hwy. w/channelization

ROUTE CONCEPT LOS (2005): D-35

ANTICIPATED LOS (2005): F-20

Exhibit No.: 1B

ROUTE SEGMENT DATA
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DISTRICT: 5 COUNTY: MON ROUTE: 218

SEGMENT NUMBER: 1 P.M.: 0.0 to P.M.: 2.0 LENGTH: 2.0

DESCRIPTION: Jct. Rte. 1 to Jct. Rte. 68
(subsegment P.M. 0.0 to LO.9)

FUNCTIONAL CLASSIFICATION: Minor Arterial

FEDERAL AID CLASSIFICATION: Urban

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 4

LANE WIDTH: 12' SHOULDER WIDTH: 2', 4', & 8'

R/W WIDTH: 100' MEDIAN WIDTH: 4' & 12'

ADT (Present,1990): 16,000

ADT (Future,2010): 25,000

PEAK HOUR VOLUME (Present): 1,600

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.65 LOS: C % TRUCKS: 7%

SIGNALIZED INTERSECTIONS: 0

ACCIDENT RATE: 4.44 FAT: 0.000 F&I: 2.57

COMP. STWIDE ACC. RATE: 3.25 FAT: 0.026 F&I: 1.28

PROPOSED ROUTE CONCEPT (2010): No Change

ROUTE CONCEPT LOS (2010): E-30*

ANTICIPATED LOS (2010): F-20

Exhibit No.: 1A

ROUTE SEGMENT DATA
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DISTRICT: 5 COUNTY: MON ROUTE: 218

SEGMENT NUMBER: 1 P.M.: 0.0 to P.M.: 2.0 LENGTH: 2.0

DESCRIPTION: Jct. Rte. 1 to Jct. Rte. 68
(subsegment P.M. L0.9 to 2.0)

FUNCTIONAL CLASSIFICATION: Minor Arterial

FEDERAL AID CLASSIFICATION: Urban

TYPE OF FACILITY: Conventional

TYPE OF TERRAIN: Rolling

NUMBER OF TRAFFIC LANES: 2

LANE WIDTH: 12' SHOULDER WIDTH: 2', 4', & 8'

R/W WIDTH: 100' MEDIAN WIDTH: 0'

ADT (Present,1990): 9,000

ADT (Future,2010): 14,000

PEAK HOUR VOLUME (Present): 1,000

DIRECTIONAL SPLIT: 60%

HOURS DELAY, P.M. PEAK: None

V/C RATIO: 0.90 LOS: E* % TRUCKS: 7%

SIGNALIZED INTERSECTIONS: 2

ACCIDENT RATE: 1.00 FAT: 0.000 F&I: 0.65

COMP. STWIDE ACC. RATE: 2.93 FAT: 0.042 F&I: 1.27

PROPOSED ROUTE CONCEPT (2010): 4-lane Conventional Hwy. w/channelization

ROUTE CONCEPT LOS (2010): D-35

ANTICIPATED LOS (2010): F-20

Exhibit No.: 1B